that the wound in the soft parts is not in the same line with that in the bones, and that the cleft between the same surfaces of the femur and tibia is covered by the flap, and not so much exposed, as in the usual operation, to external influences. In ten of the twenty recent cases of resection of the knee, Prof. Bruns made the superior curved incision, in nine cases the inferior curved incision, and in the remaining three the patella was sawn across obliquely and then removed. In each case dressings of corrosive sublimate were applied, the ends of the bones were kept in contact by two nails, and the edges of the flap were brought together by sutures applied as carefully as in a plastic operation on the face. The limb, having been inclosed in "wood-wool," was then put up in a Watson's splint and plaster-of-Paris bandage.—*London Medical Record*, Oct. 15, 1884.

OPHTHALMOLOGY AND OTOLOGY.

Cocaine as an Anæsthetic in Ophthalmic Practice.

At the meeting of the Society of Physicians of Vienna, on October 17, Dr. KARL KOLLER read a paper on this subject. The anæsthetic influence which cocaine exerts when applied locally to the mucous membrane of the tongue led Dr. Koller to try its effect on the eye. After referring to the publications of Schroff, Anrep, and Freud, he made several experiments on animals in Professor Stricker's laboratory, from which he found that two or three drops of a two per cent. aqueous solution of chloride of cocaine, introduced into the conjunctival sac, rendered the cornea and conjunctiva quite insensible. If he scratched with a needle, or even perforated the cornea of animals so treated, or passed a strong electrical current through it or touched it with caustic, the animals felt no irritation at all. As to the duration of this anæsthesia, he could obtain no idea from his experiments on animals. He tried to find out if cocaine had also an influence on the inflamed cornea. He first produced keratitis in animals by introducing a foreign body into the eye, and he found that the cocaine also acted as a local anæsthetic under these conditions. The success of these experiments on animals led him to try the effect of cocaine on the human eye, and he had obtained the following results: (1) One or two minutes after introducing a few drops of a two per cent. solution of cocaine chloride, the cornea and conjunctiva were rendered completely insensible; he could seize the conjunctiva with hooked tweezers and exert considerable pressure on the cornea, and the patient felt nothing, nor were there any reflex movements. The anæsthesia lasted from seven to ten minutes, and disappeared gradually. (2) Simultaneously with the anæsthesia, considerable dilatation of the palpebral orifice occurred, which he explained by the absence of the sources of irritation which otherwise affect the cornea and conjunctiva. (3) The ocular and palpebral conjunctiva became anæmic. (4) Fifteen minutes after introduction, mydriasis set in. It was never present in any great degree; after an hour it decreased considerably, and totally disappeared some hours later. During this period the pupil reacted quickly. (5) Paresis of accommodation set in together with the mydriasis, and also disappeared with it. (6) When the application of the above-mentioned solution of cocaine chloride was continued, and repeated every five minutes, the anæsthesia of the cornea lasted from fifteen to twenty minutes, and the deeper parts of the eyeball became anæsthetic, its sensibility being much diminished on pressure. (7) The application of cocaine never produced any signs of irritation. Dr. Koller had further made therapeutic experiments with cocaine in Professor v. Reuss's clinic, and found that it was a good anodyne in diseases of the eye which were associated with pain. He obtained good results with it in various diseases of the cornea and conjunctiva, which were associated with pain and photophobia, as, *e. g.*, syndesmitis lymphatica and erosions of the cornea; it was also of use in cases in which the touching of the eyelids with nitrate of silver would cause severe pain. He recommended the application of cocaine in cases of iritis and iridocyclitis where the contraction of the vessels must render good service. The application of cocaine as an anæsthetic in ophthalmic operations had excellent results in thirty cases of removal of foreign bodies from the cornea, in cases of tattooing cicatrices on the cornea, in two cases of operation for staphyloma in children, as well as in several iridectomies and operations for cataract. When the anæsthesia in these operations was produced according to the method which Koller had recommended, *i. e.*, with a five per cent. solution, the patients stated that they felt nothing of the corneo-scleral incision, while the seizing and excision of the iris caused them but little pain. In this respect he quoted an interesting case in which iridectomy was performed on a man who had suffered from "seclusio pupillæ," affecting both eyes; the solution was applied in the operation on one eye and omitted when the other eye was operated on a week later. The patient declared he felt no pain at all during the first operation, but his restlessness during the second operation rendered it difficult.—*Med. Times and Gazette*, November 8, 1884.

Chiselling of the Mastoid Process.

Dr. ARTHUR HARTMANN reports 14 cases of chiselling of the mastoid process, with 12 recoveries and 2 deaths. He gives a short general review of his practical experience, as follows:—

The incision of the skin and the opening of the bone should be practised at the line of attachment of the auricle, or, at least, immediately behind it.

In two cases of the entire number the operation was performed on the healthy surface of the mastoid process. In both cases the skin incision was made at the line of attachment of the auricle, and the mastoid was opened directly beneath this. In both cases the collection of pus was reached at a trifling depth. In the other cases with formation of fistules it likewise proved most judicious so to incise the skin that the bone beneath the line of attachment of the auricle, or immediately behind it, should come into the region attacked by the chisel. It did not seem advisable to carry the operation-canal further backward on account of the danger of injuring the transverse sinus. According to the results of examinations of the cadaver already communicated, and which are essentially in accord with those of Bezold and others, a sharp forward curve of the transverse sinus toward the posterior wall of the auditory canal is very frequent. In 100 temporal bones, the shortest distance between the sigmoid fossa and the posterior wall of the auditory canal amounted in 41 cases to 1 cm. or less, in 1 case to 5 mm., in 5 cases to 6 mm., and in 6 cases to 7 mm. The average distance was 11.5 mm., the maximum 19 mm. The danger of wounding the transverse sinus is best seen on horizontal sections. As we cannot foretell whether we shall, in operating, chance upon a sharp curve of the transverse sinus, such a possibility should always be borne in mind. Those who are familiar with the anatomical relations of the parts will, therefore, avoid the use of drills or trephines, such as are employed by many physicians. When, in using such an instrument, the sinus